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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,927	07/20/2001	Kenneth Perlin	NYU-7	2411

7590 04/20/2005  
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EXAMINER

NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/909,927	PERLIN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kevin M. Nguyen	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Request for Continued Examination*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/05/2005 has been entered. An action on the RCE follows:
2. Applicant's arguments, see page 10, filed 01/05/2005, with respect to the rejection(s) of claims 1-11 under statutory basis for the previous rejection have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 7, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takezaki (newly cited, US 5,880,704) in view Allio (previously cited, US 5,808,599), and further in view of Lemelson et al (newly cited, US 6,816,158).

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4. As to claims 1 and 7, Takezaki teaches 3D display device associated with a method, the 3D display device comprising

a display screen LCD 3 (fig. 1A); a light blocking shutter 1 (fig. 1A); stripe pattern 1a (fig. 1A), a display control portion 4, a left eye SL (fig. 5), a right eye SR (fig. 5), a CCD 13 (an eye tracker, fig. 2).

Accordingly, Takezaki teaches all of the claimed limitation, except for "1/3 of each stripe of the image on the display screen during each of at least three distinct phases as red, green and blue."

However, Allio teaches 3D display device including 1/3 of each stripe of the image on the display screen (see Fig. 1A, column 1, line 55-56), during each of at least three distinct phase as red, green and blue (Fig. 1A, col. 3, lines 29-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Takezaki's LCD (3) and shutter (1) including a RGB screen (20) and including 1/3 of each stripe of the image on the display screen during each of at least three distinct phase as red, green and blue, in view of the teaching Allio's patent, because this would obtain focal lengths that are smaller and to obtain observed areas that are smaller, thereby avoiding the observer perceiving the dot structure of color points and pixel on the screen (column 1, lines 52-55 of Allio).

Takezaki and Allio teach all of the claimed limitation, except for "that continually changes the width and positions of the strips as the observer moves for arbitrary position."

However, Lemelson et al teaches the process for shifting the image pair 32 and 34 with an arbitrary angular position of the viewable locations (see details of fig. 5, col. 7, line 48 through col. 8, line 4), and the process for adjusting width the image strips 32 and 34 with a arbitrary distance of the viewable locations (see details of fig. 6, col. 8, lines 5-17).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Takezaki's with Allio's LCD and shutter including the process for shifting and changing width the image strips 32 and 34 with arbitrary angular position and distance of the viewable locations, in view of the teaching in Lemelson et al's patent, because this would provide a new and improved three dimensional (3-D) viewing system and method for multiple viewing positions of one or more viewers as taught by Lemelson et al (col. 4, lines 25-30).

5. As to claims 2, 4, 11, Takezaki teaches an image obtained by projecting a three-dimensional image M (col. 5, lines 44-45).

6. As to claim 3, Takezaki teaches a display control portion 4 (a field programmable gate array, figure 1A) and a shutter control portion 2 (fig. 1A).

7. As to claim 8, Lemelson et al reviews forming step of encoding into 1-dimensional bit-map (see figure 2).

8. Claims 5, 6, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takezaki in view of Allio in view of Lemelson et al, and further in view of Johnson et al (US 5,231,521).

9. As to claims 5, 6, 9 and 10, the combination of Takezaki, Allio, and Lemelson et al teaches all of the claimed limitations of claims 1 and 7, except for a ferroelectric liquid crystal display (LCD) and a pi-cell.

However, Johnson et al teaches the ferroelectric liquid crystal display (LCD) and the pi-cell (see figure 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to substitute Takezaki's LCD with the ferroelectric liquid crystal display (LCD) and the pi-cell, in view of the teaching in Johnson et al's patent, because this would be optimized for increased spectral discrimination, improved single and multiple stage filters, discretely tunable and continuously tunable filters (column 4, line 65 of Johnson et al).

### ***Response to Arguments***

10. Applicant's arguments filed 01/05/2005 have been fully considered but they are not persuasive. Applicant argues features in the independent claims 1 and 7 that are newly recited. Thus, new grounds of rejection have been used. See above rejections.

### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Nguyen whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 8:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick N. Edouard can be reached on 571-272-7603. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the Patent Application Information Retrieval system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin M. Nguyen  
Patent Examiner  
Art Unit 2674

KMN  
February 1st, 2005

  
**XIAO WU**  
**PRIMARY EXAMINER**